

ADEQ MINOR SOURCE AIR PERMIT

Permit #: 878-AR-13

IS ISSUED TO:

Cedar Chemical Corporation
49 Phillips Road 311
Helena, AR 72342
Phillips County
CSN: 54-0068

THIS PERMIT IS YOUR AUTHORITY TO CONSTRUCT, MODIFY, OPERATE, AND/OR MAINTAIN THE EQUIPMENT AND/OR FACILITY IN THE MANNER AS SET FORTH IN THE DEPARTMENT'S MINOR SOURCE AIR PERMIT AND YOUR APPLICATION. THIS PERMIT IS ISSUED PURSUANT TO THE PROVISIONS OF THE ARKANSAS WATER AND AIR POLLUTION CONTROL ACT (ARK. CODE ANN. SEC. 8-4-101 ET SEQ.) AND THE REGULATIONS PROMULGATED THEREUNDER, AND IS SUBJECT TO ALL LIMITS AND CONDITIONS CONTAINED HEREIN.

Signed:

Keith A. Michaels

Date

SECTION I: FACILITY INFORMATION

PERMITTEE: Cedar Chemical Corporation
CSN: 54-0068
PERMIT NUMBER: 878-AR-13

FACILITY ADDRESS: 49 Phillips Road 311
Helena, AR 72342

COUNTY: Phillips

CONTACT POSITION: Larry McDermott
TELEPHONE NUMBER: (870) 571-3701

REVIEWING ENGINEER: Michael H. Watt

UTM North-South (Y): Zone 15 3,821.7 km
UTM East-West (X): Zone 15 715.7 km

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SECTION II: INTRODUCTION

Summary

Cedar Chemical Corporation (Cedar) operates an organic chemical manufacturing plant in West Helena, Arkansas. Currently, Cedar has six production units. Units 1 and 5 are used for custom products, Unit 3 is used for production of Diuron, Unit 2 is used for production of Propanil, Unit 4 is used for production of Aciflourfen, and Unit 6 is used for production of Dichloroaniline (DCA).

This de minimis change is to allow for installation of a charge vessel between the Sodium Methoxide charge tank and the Unit 5 Coupling Reactor. The vessel is used to more precisely charge the reactor during the Cyclanilide production process. Emissions will vent into the reactor as the reactor is charged. Along with this modification, Cedar is increasing the monthly production limit for the Cyclanilide process. Overall emissions increases are 0.1 pounds per hour of VOC and 0.2 pounds per hour of Methanol.

A second de minimus change is to allow for production of Ro-Neet in Unit 1.

Process Description

UNIT 1:

Unit 1 can produce and/or process the following products or product intermediates:

- BFG Resin
- Pentabrom
- Metolachlor
- Cyclanilide (re-wash from Unit 5)
- Methanol Recovery
- 2-Amino-1-Butanol (2-AB) (distillation from Unit 5)
- Ro-Neet

BFG Resin:

A polybutadiene is dissolved in a solution of Dicyclopentadiene (DCPD) and ethylenenorborne (EDB) to form a feed blend. After blending, the solution is divided into two portions and is transferred into two separate reactors. Resulting emissions are VOCs and ethane. Emissions are controlled using a packed tower scrubber (SN-02) which utilizes kerosene as the scrubbing media.

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Pentabrom:

Diphenyl oxide (DPO) is brominated using liquid bromine in the presence of an iron catalyst to produce Pentabrom, which is a mixture of tetrabromophenyl dioxide, pentabromophenyl dioxide, and hexabromophenyl dioxide. Gaseous hydrogen bromide (HBr) and some elemental bromine are evolved during the bromination and are absorbed in cold water to produce a red acid solution.

After bromination, the Pentabrom is washed twice with water to remove the iron catalyst, now in the form of iron bromide, and any dissolved HBr or bromine. The organic is then stripped of all remaining water. Triaryl Phosphate (TAP) is then blended with the stripped Pentabrom to produce the blended product, which is then sent to the customer.

Metolachlor:

The process utilized to produce Metolachlor consists of two basic organic chemistry reaction, reduction alkylation and acylation. The reductive alkylation reaction is carried out in a pressure vessel equipped with a condenser. The reactor has a jacket for cooling the reaction mass. The heptane solvent medium is first charged to the reactor. This is followed by the addition of 2-Ethyl-6-Mehylaniline. An excess of methoxyacetone is then added to the reactor. Finally the small amounts of catalysts are added to the agitated mixture. The catalysts consist of sulfuric acid and platinum on carbon. The reactor is sealed, and the air in the vapor space is displaced by nitrogen. The reactor is heated to operating temperature, and hydrogen is bubbled into the reactor through a dip pipe. The reaction is exothermic. Cooling water on the reactor jacket is used to maintain the temperature. When the reaction is complete, the reactor is vented to the condenser through the scrubber, and the reactor is purged with nitrogen. Caustic is added to the reactor to neutralize the sulfuric acid. The reaction mixture is then allowed to separate, and the aqueous phase is removed. The excess methoxyacetone is recovered from the aqueous phase by azeotropic distillation.

The organic phase is transferred to the acylation reactor and diluted with the addition of solvent. A small amount of triethylamine is then added to the mixture. This is followed by the addition of 30% Sodium Hydroxide solution. The Sodium Hydroxide is used to capture HCl as it is generated in the reaction. The mixture is cooled to the operating temperature by means of an external circulation loop and cooler. Chloroacetylchloride is then slowly added to the mixture while maintaining the temperature in the reactor. When the reaction is complete, the mixture is allowed to separate, and the aqueous phase is discarded. The organic phase is neutralized with acid and washed with additional water. The neutralized Metolachlor/solvent mixture is transferred to the solvent recovery reactor where the solvent is removed by vacuum stripping. The Metolachlor technical is then cooled and transferred to storage for drumming or transferred

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to tank trucks. The recovered solvent is recycled into the next batch.

Methanol Recovery:

Tramethamine (TA) is a white crystal used in pharmaceutical products such as contact lens cleaners. It is used as a biocide to keep liquids free of microorganisms or as an expipient (it carries a chemical without being part of any reaction). The production of this chemical takes place in Unit 5. However as a result of process upsets or bottlenecks, the solvent recovery step must be run in Unit 1 to supplement the productivity of the same operation in Unit 5.

The wet methanol is loaded on a tank truck in Unit 5 for transport to Unit 1. This mixture is then charged batch wise to R-1112. Sulfuric acid is added to neutralize any residual amines still in the solution. The still pot is then heated until boil-up through the column occurs. The vapors exiting the column are condensed and collected in V-1312. Once the distillation reaches steady state, the liquid in this receiver will be 99% methanol. Part of the liquid will be fed back to the top of the column to control the column temperature. Whatever is not needed for reflux will be transferred to another tank truck for recycling back into Unit 5. Once the methanol has been removed from the still pot, the remaining water is pH corrected and sent to the ponds for treatment.

Ro-Neet

Kerosene is transferred from storage tank T-1219 to Unit 1 reactor R-1109. Drums of cycloate are heated above 70°F and then charged to the reactor. The kerosene is circulated through an eductor, which draws the cycloate into the reactor. The mixture is agitated before charging the emulsifier Sponto 221 ER through the eductor. The product is pulled and assayed after being agitated for 30 minutes. Additional kerosene is added to adjust the final product to a label assay of 73.9%. After all specifications are met, the product is transferred to a packout station.

UNIT 2:

Unit 2 produces Propanil exclusively.

Propanil:

3,4-Dichloroaniline and propionic acid are heated. Water formed during the reaction is removed. Propionic anhydride is added to drive the reaction to completeness. Emissions are controlled using a water scrubber (SN-03). The technical grade of product may be packaged or formulated with an emulsifier and a solvent. The formulated products are used solely as herbicides for rice crops. The formulated products are produced in formulation tanks. The formulation tanks are

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controlled by conservation vents (slight nitrogen pressure).

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UNIT 3:

Unit 3 produces Diuron and MACE CS.

Diuron:

3,4-dichlorophenyl isocyanate (DCPI) and dimethyl amine (DMA) are reacted to form 3-(3,4-dichlorophenyl)-1,1-dimethyl urea (Diuron). The reaction is carried out in a jacketed tank reactor. Heptane (or other solvent) is used as a carrier solvent for the reactants and a suspension media for the Diuron. The slurry is centrifuged to remove the majority of the Heptane (solvent). The Diuron cake is discharged to a dryer, which separates the remaining Heptane (solvent) from the Diuron to produce a powder. DMA emissions are controlled using an acid scrubber (SN-04). Heptane emissions are not controlled.

MACE CS:

CS-1 is a combination of approximately 5% silica with 95% o-chloroenzylidene malononitrile (CS). The process is designed to separate the CS from the silica recovering the CS and disposing of the silica as waste. The CD is separated from the silica by mixing CS-1 with Methanol, heating, settling, and decanting the product (CS dissolved in Methanol). The product is then crystallized out of the solution by cooling, centrifuging, and drying. The isolated dry product is then packaged in open-top, metal drums with a plastic liner.

UNIT 4:

Unit 4 produces Aciflourfen exclusively.

Aciflourfen:

Aciflourfen precursor (sodium salt) is acidified with sulfuric acid, undergoes nitration with nitric acid in the presence of sulfuric acid and acetic anhydride. The crude Aciflourfen is washed and stripped to remove acetic acid and ethylene dichloride (EDC). The material is neutralized with caustic solution to generate Aciflourfen sodium salt in water. Pollutant emissions are controlled by a caustic scrubber (SN-05).

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UNIT 5:

Unit 5 can produce the following products or product intermediates:

Tramethamine
Ticona
Cyclanilide
2-Amino-1-Butanol (2-AB)

Tramethamine:

Nitroparaffin is reacted with formaldehyde and followed by a water removal process (WR Grace). The resulting nitro intermediate is reduced by catalytic hydrogenation. The catalyst is then removed. The product is crystallized, centrifuged, and dried in a rotary vacuum dryer. The products are further concentrated by distillation.

Two sulfuric acid scrubbers are used to control emissions from Unit 5. One scrubber (SN-06a) controls emissions from the condensation reactor and other product vents. The second scrubber (SN-07) controls emission from the hydrogenation reactor.

Ticona:

Ticona is charged to the product dryer from totes and dried in batches up to 5,550 pounds. Steam is supplied to the rotary dryer from the facility's boiler to accomplish non-contact drying of the product. Drying of the product to the desired moisture content is accomplished over time periods lasting up to 37.5 hours.

Cyclanilide:

Steam tracing is turned on the bottom head of the Coupling Reactor R5104 to preheat the reactor. The 2,4 DCA is charged from hot drums by pulling a vacuum on the reactor. The reaction solvent, Xylene, is charged at atmospheric pressure into the reactor from tank T-5216. The reactor is heated to 95-105°F via a steam jacket with temperature controls. The reaction is continued by charging the CPDM from drums. The vacuum is increased, and the reactor is heated to 140°F.

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The Sodium Methoxide solution is charged to the Coupling Reactor over a 2 to 3 hour period. During the Sodium Methoxide charge, MeOH generated from the reaction and charged with the NaOCH₃ is distilled at 180 mm Hg and 140°F pot temperature. The vacuum on the reactor is decreased to remove all the MeOH until the vacuum is broken. The mixture is allowed to stir while the water thins the mixture for transfer. The batch is then transferred to the Hydrolysis Reactor R-5101 for further processing. The MeOH stored in the overhead receiver is transferred back to the Coupling Reactor to remove potential water contamination. The resulting MeOH in water is transferred to the organic waste truck.

The remainder of the water is charged to the Hydrolysis Reactor R-5101, and the agitator is started. A vacuum is drawn on the reactor while the reactor is maintained at 140°F via steam on the jacket. The batch is held at temperature and pressure for three hours under total reflux to complete the hydrolysis of the ester. The batch is then distilled to remove the reaction generated MeOH. The batch must be maintained at or below 140°F. The vacuum is broken, and the agitator is stopped. The product phase is allowed to separate from the organic phase in preparation for the next step in the manufacturing process. The organic phase is transferred to storage in preparation for solvent recovery.

The batch is transferred to the Precipitation Reactor R-5103 where the temperature is maintained at 140°F. Formic Acid is charged to the reactor over a one to two hour period while the Cyclanilide product precipitates out of the batch.

The batch is then transferred to vessel V-5312 for isolation. The batch is maintained between 130 and 140°F while the slurry is centrifuged and washed with water. The centrifuge discharge is loaded directly into supersacks for transfer to the vacuum dryer. The Mother Liquor is circulated in storage tanks while it is treated with NaOH to maintain the pH.

The supersacks of the centrifuged Cyclanilide are loaded into the vacuum dryer to be dried under vacuum and modest temperature. The batch is discharged through a sifter to remove any product greater than 1.0 millimeter.

The solvent is stored in tank T-5214 and then charged to reactor R-5105 for solvent recovery. The batch is heated and distilled at atmospheric pressure to remove the forerun cut, potentially Xylene, MeOH, and water. The forerun cut is transferred to organic waste drums, and a vacuum is drawn on the reactor. The Xylene is distilled from the batch to a pot temperature of 250°F.

Cyclanilide produced in Unit 5 is re-washed in Unit 1 prior to final packaging. The Cyclanilide is sent to a centrifuge for water re-washing. The water used in the centrifuge is sent to a Mother Liquor hold tank for storage. Once the Cyclanilide product has finished the re-washing process, the product is packaged for shipping.

[illegible]

UNIT 6:

Dichloroaniline (DCA):

Off gasses from the DCNB production are controlled utilizing a lights scrubber followed by a caustic scrubber (SN-08). DCA production off gases are controlled utilizing the hydrogenation scrubber (SN-09), which utilizes lights, or are routed back to the first lights scrubber followed by the caustic scrubber (SN-08). An emergency scrubber (SN-10) controls over pressure from the distillation unit. Nitric acid vapors are controlled by a nitric acid scrubber (SN-11).

This facility is subject to the Arkansas Air Pollution Control Code (Regulation 18) and the Regulations of the Arkansas Plan of Implementation for Air Pollution Control (Regulation 19). This facility is also subject to 40 CFR 60 Subpart Dc - Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units, 40 CFR 60 Subpart Kb - Standards of Performance for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced after July 23, 1984, and 40 CFR 60 Subpart VV - Standards of Performance for Equipment Leaks of VOC in the Synthetic Organic Chemicals Manufacturing Industry.

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The following table is a summary of the facility's total emissions.

TOTAL ALLOWABLE EMISSIONS		
Pollutant	Emission Rates	
	lb/hr	tpy
PM	0.9	3.3
PM ₁₀	0.9	3.3
SO ₂	0.2	0.2
VOC	108.2	74.0
CO	1.9	8.0
NO _x	7.3	32.1
Acetic Acid	0.01	0.04
Acetic Anhydride	0.09	0.34
Br ₂	0.20	0.40
Cumene*	0.40	0.04
1,4-Dichlorobenzene*	0.15	0.19
Ethylbenzene*	0.70	0.04
Formaldehyde*	0.03	0.03
HBr	0.60	2.60
Isophorone*	1.20	0.05
Methanol	13.60	7.85
MIBK*	32.80	0.27
Naphthalene*	0.40	0.04
Nitric Acid	0.21	0.80
Perchloroethylene*	0.41	1.73
Sulfuric Acid	0.06	0.24
Toluene*	25.73	0.38
Xylene*	26.84	1.20

* = HAPs Included In Total VOC

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SECTION III: PERMIT HISTORY

Permit 126-A was issued to Eagle River Chemical Corporation on 7/28/72 for the manufacture of 3,4-Dichloropropionanilide (Propanil).

Permit 126-AR-1 was issued to the Eagle River Chemical Corporation on 11/19/76 to include manufacture of Nitro Benzoate Ester, Methomyl, and Basalin.

Permit 126-AR-2 was issued to the Eagle River Chemical Corporation on 9/29/78 to replace a steam jet vacuum device with a vacuum pump.

Permit 126-AR-3 was issued to Vertac, Incorporated on 11/16/79 to include manufacture of Permethrin and Cypermethrin.

Permit 126-AR-4 was issued to the Vertac Chemical Corporation on 11/16/79 to include expansion of the DRA production unit.

Permit 878-A was assigned to the Cedar Chemical Corporation on 4/4/88 to update the existing air permits.

Permit 878-AR-2 was issued to Cedar Chemical Corporation on 12/12/89 to include production of Tris (hydroxymethyl) aminomethane (TA), 2-amino-butanol (2AB), and 2-amino-2-propanol (AMP) in unit 5.

Permit 878-AR-3 was issued to Cedar Chemical Corporation on 7/10/90 to include manufacture of Telene polymer resin in Unit 1 and 3,4-Dichloroamine (DCA) in Unit 6.

Permit 878-AR-4 was issued to Cedar Chemical Corporation on 9/17/91 to include manufacture of Di 2-Ethylhexylphosphoric Acid (DEPHA) in Unit 4.

Permit 878-AR-5 was issued to Cedar Chemical Corporation on 11/12/91 for the production of Sectagon and Cobra in Unit.

Permit 1351-A was issued to Cedar Chemical Corporation on 12/15/92 for the production of ADPA, a cleaning agent, in Unit 4.

Permit 878-AR-6 consolidated permits 878-AR-5 and 1351-A , removed production of Methyl Ethyl Sulfide (MES) and production of Methyl 2-Benzimidazole Carbamate (MBC), and authorized production of TCDNB, Diuron, and the bleach process. This modification also assigned individual emission rates to existing boilers and oil heaters.

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Permit 878-AR-7 was a minor modification allowing for the production of Graphsize A in Unit 4.

Permit 878-AR-8 was a minor modification allowing for the production of Suresize 25 and Suresize 30 in Unit 1.

Permit 878-AR-9 was a minor modification allowing for the production of Tritolyl phosphite (TTP) in Unit 4 and production of Diuron in Unit 2 (Diuron is normally produced in Unit 5).

Permit 878-AR-10 was issued to Cedar Chemical Corporation on 2/3/98 to add Unit 3 for production of Diuron, add a new boiler, update all tank information, and update many equipment changes authorized through letters from the Department.

Permit 878-AR-11 was issued to Cedar Chemical Corporation on 8/23/01 to incorporate several De Minimis applications submitted by the facility which included the addition of Stanol in Unit 5, the addition of Pentabrom in Unit 1, the installation of a new product dryer to remove 1,4 Dichlorobenzene from Ticonal in Unit 1, the addition of the MACE CS recovery in Unit 3, the addition of Metolachlor in Unit 1, the addition of Cyclanilide in Unit 5 and its washing in Unit 1, the installation of a methanol recovery process into Unit 1, and the addition of 2-Amino-1-Butanol (2-AB) in Unit 5.

Permit 878-AR-12 was issued to Cedar Chemical Corporation on 1/25/02 to allow for distillation of 2-Amino-1-Butanol (2-AB) in Unit 1. Emissions were routed through the Unit 1 Scrubber (SN-01d) with water being the scrubber liquid. In addition, this modification allowed for an increase in the monthly raw material throughput and production levels for the Diuron process in Unit 3. There will be no change in the hourly or annual emissions to the Unit 3 process.

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SECTION IV: EMISSION UNIT INFORMATION

Specific Conditions

- Pursuant to §19.501 et seq of the Regulations of the Arkansas Plan of Implementation for Air Pollution Control, effective February 15, 1999 (Regulation 19) and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, the permittee shall not exceed the emission rates set forth in the following table.

SN	Description	Process	Pollutant	lb/hr	tpy
SN-01a SN-01b SN-01c SN-01d	Unit 1 Scrubber	Pentabrom Metolachlor Methanol- Recovery 2-AB Distillation	VOC	1.2	0.9
SN-02a SN-02b	Unit 1 Scrubber	BFG Resin Metolachlor Ro-Neet	VOC	0.1	0.2
	Unit 1 Fugitives	BFG Resin Pentabrom Metolachlor Cyclanilide- Product 2-AB Distillation Ro-Neet	VOC	1.4	5.4
SN-03	Unit 2 Scrubber	Propanil	VOC	0.1	0.1
	Unit 2 Fugitives	Propanil	VOC	0.2	0.8
SN-04a SN-04b	Unit 3 Scrubber	Diuron MACE CS- Recovery	VOC	11.7	51.3
	Unit 3 Fugitives	Diuron	VOC	0.5	2.2
SN-05	Unit 4 Scrubber	Aciflourfen	VOC	0.1	0.3
	Unit 4 Fugitives	Aciflourfen	VOC	0.4	1.5

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SN	Description	Process	Pollutant	lb/hr	tpy
SN-06a SN-06b SN-06c SN-06d	Unit 5 Scrubber	Tramethamine Ticona Cyclanilide 2-AB	VOC	10.4	1.3
SN-07a SN-07b	Unit 5 Scrubber	Tramethamine 2-AB	VOC	0.3	0.1
	Unit 5 Fugitives	Tramethamine 2-AB Cyclanilide	VOC	0.7	2.6
SN-08	Unit 6 Caustic Scrubber	DCA	VOC	0.6	2.6
SN-10	Unit 6 Hydrogenation Scrubber	DCA	VOC	0.1	0.1
SN-11	Unit 6 Nitric Acid Tank Scrubber	DCA	No Criteria Pollutants		
	Unit 6 Fugitives	DCA	PM/PM ₁₀ VOC	0.1 0.4	0.1 1.4
SN-19	Oil Heater	1.9 MMBTU/hr	PM SO ₂ VOC CO NO _x	0.1 0.1 0.1 0.1 0.2	0.1 0.1 0.1 0.2 0.9
SN-21	Boiler	53.3 MMBTU/hr	PM ₁₀ SO ₂ VOC CO NO _x	0.7 0.1 0.1 1.8 7.1	3.1 0.1 0.6 7.8 31.2
SN-32	Tank 1212	Waste Kerosene	VOC	0.1	0.1
SN-34	Tank 1219	Solvent Storage	VOC	0.1	0.1

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SN	Description	Process	Pollutant	lb/hr	tpy
SN-35	Tank 2200	Propanil Technical	VOC	0.1	0.1
SN-36	Tank 2201	Propanil Formulation	VOC	5.3	0.1
SN-37	Tank 2202	Propanil Blend Tank 1	VOC	9.0	0.1
SN-38	Tank 2203	Propanil Blend Tank 2	VOC	5.3	0.1
SN-42	Tank 2207	Tenneco Storage	VOC	5.0	0.1
SN-43	Tank 2208	DCPI	VOC	0.1	0.1
SN-44	Tank 2209	Isophorone	VOC	0.3	0.1
SN-45	Tank 2210	MIBK/ Isophorone	VOC	11.2	0.1
SN-46	Tank 2211	Sun Oil	VOC	0.1	0.1
SN-52	Tank 4203	Aciflourfen	VOC	0.1	0.1
SN-54	Tank 4205	Precursor Storage	VOC	14.0	0.1
SN-59	Tank 5201	Sulfuric Acid Methanol	VOC	4.7	0.1
SN-60	Tank 5203	Solvent Storage	VOC	24.1	0.8
SN-61	Tank 5204	Acetic Anhydride Storage	VOC	0.1	0.1
SN-69	Tank 1225	Reactor Bottoms	VOC	0.1	0.1
SN-70	Tank 5213	Treated- Aqueous Waste Sodium- Methoxide	VOC	0.1	0.1

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2. Pursuant to §18.801 of the Arkansas Air Pollution Control Code, effective February 15, 1999 (Regulation 18) and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, the permittee shall not exceed the emission rates set forth in the following table.

SN	Description	Process	Pollutant	lb/hr	tpy
SN-01a SN-01b SN-01c SN-01d	Unit 1 Scrubber	Pentabrom Metolachlor Methanol-Recovery 2-AB Distillation	Br ₂ HBr Methanol	0.10 0.10 0.97	0.10 0.50 0.70
	Unit 1 Fugitives	BFG Resin Pentabrom Metolachlor Cyclanilide 2-AB Distillation	Br ₂ HBr Methanol Xylene	0.10 0.50 0.83 0.94	0.30 2.10 0.60 0.25
SN-04a SN-04b	Unit 3 Scrubber	Diuron MACE CS- Recovery	Methanol	0.44	0.03
SN-05	Unit 4 Scrubber	Aciflourfen	Acetic Acid Acetic- Anhydride Nitric Acid Perchloro- Ethylene Toluene	0.01 0.01 0.01 0.07 0.01	0.04 0.01 0.01 0.28 0.02
	Unit 4 Fugitives	Aciflourfen	Acetic- Anhydride Nitric Acid Perchloro- Ethylene Toluene	0.07 0.12 0.34 0.01	0.29 0.50 1.45 0.01
SN-06a SN-06b SN-06c SN-06d	Unit 5 Scrubber	Tramethamine Ticona Cyclanilide 2-AB	1,4-Dichloro- Benzene Formaldehyde Methanol Xylene	0.10 0.01 2.43 7.90	0.10 0.01 1.09 0.77

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SN	Description	Process	Pollutant	lb/hr	tpy
SN-07a SN-07b	Unit 5 Scrubber	Tramethamine 2-AB	Formaldehyde Methanol	0.10 0.10	0.01 0.10
	Unit 5 Fugitives	Tramethamine 2-AB Cyclanilide	Formaldehyde Methanol	0.01 0.70	0.01 2.14
SN-08	Unit 6 Caustic Scrubber	DCA	1,4-Dichloro- Benzene Methanol Nitric Acid Sulfuric Acid	0.02 0.57 0.05 0.04	0.07 2.47 0.18 0.16
SN-10	Unit 6 Hydrogenation Scrubber	DCA	1,4-Dichloro- Benzene Methanol	0.01 0.01	0.01 0.01
SN-11	Unit 6 Nitric Acid Tank Scrubber	DCA	Nitric Acid	0.01	0.03
	Unit 6 Fugitives	DCA	1,4-Dichloro- Benzene Methanol Nitric Acid Sulfuric Acid	0.02 0.07 0.02 0.02	0.01 0.27 0.08 0.08
SN-34	Tank 1219	Solvent Storage	Toluene	0.10	0.10
SN-36	Tank 2201	Propanil Formulation	Cumene Ethylbenzene Isophorone MIBK Naphthalene Toluene Xylene	0.10 0.10 0.10 5.30 0.10 0.20 0.10	0.01 0.01 0.01 0.05 0.01 0.01 0.01

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SN	Description	Process	Pollutant	lb/hr	tpy
SN-37	Tank 2202	Propanil Blend Tank 1	Cumene	0.10	0.01
			Ethylbenzene	0.20	0.01
			Isophorone	0.20	0.01
			MIBK	5.30	0.05
			Naphthalene	0.10	0.01
			Toluene	0.40	0.01
			Xylene	0.10	0.01
SN-38	Tank 2203	Propanil Blend Tank 2	Cumene	0.10	0.01
			Ethylbenzene	0.20	0.01
			Isophorone	0.30	0.01
			MIBK	11.00	0.08
			Naphthalene	0.10	0.01
			Toluene	0.40	0.01
			Xylene	0.20	0.01
SN-42	Tank 2207	Tenneco Storage	Cumene	0.10	0.01
			Ethylbenzene	0.20	0.01
			Naphthalene	0.10	0.01
			Toluene	0.40	0.01
			Xylene	0.20	0.01
SN-44	Tank 2209	Isophorone	Isophorone	0.30	0.01
SN-45	Tank 2210	MIBK/Isophorone	Isophorone	0.30	0.01
			MIBK	11.20	0.09
SN-52	Tank 4203	Aciflourfen	Toluene	0.10	0.10
SN-54	Tank 4205	Precursor Storage	Toluene	0.01	0.01
			Xylene	6.40	0.10
SN-59	Tank 5201	Methanol	Methanol	4.70	0.05
SN-60	Tank 5203	Solvent Storage	Methanol	2.67	0.38
			Toluene	24.10	0.10
			Xylene	11.10	0.05
SN-61	Tank 5204	Acetic Anhydride Storage	Acetic Anhydride	0.01	0.04

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SN	Description	Process	Pollutant	lb/hr	tpy
SN-70	Tank 5213	Treated- Aqueous Waste Sodium- Methoxide	Methanol	0.01	0.01

3. Pursuant to A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, visible emissions shall not exceed the limits specified in the following table of this permit as measured by EPA Reference Method 9.

SN	Limit	Regulatory Citation
19	10%	18.501
21	10%	18.501

4. Pursuant to §18.801 of Regulation 18, and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, the permittee shall not cause or permit the emission of air contaminants, including odors or water vapor and including an air contaminant whose emission is not otherwise prohibited by Regulation #18, if the emission of the air contaminant constitutes air pollution within the meaning of A.C.A. §8-4-303.
5. Pursuant to §18.901 of Regulation 18, and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, the permittee shall not conduct operations in such a manner as to unnecessarily cause air contaminants and other pollutants to become airborne.
6. Pursuant to §19.705 of Regulation 19 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, the permittee shall not exceed the throughputs listed in the following table:

SN	Product/Raw Material	Production/Operation Rates	
		Maximum Monthly (lb)	Maximum Annual (lb)
SN-01a	Pentabrom Product	1,871,535	22,770,340
	Bromine	2,768,000	33,677,333
SN-01b	Metolachlor Product	671,807	8,061,687

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SN	Product/Raw Material	Production/Operation Rates	
		Maximum Monthly (lb)	Maximum Annual (lb)
	Heptane	127,622	1,531,467
SN-01c	Methanol Recovery Product	372,000	4,380,000
	Methanol	744,000	8,760,000
SN-01d	2-AB Product	154,000	307,740
	2-AB Crude Product Charged	352,000	702,480
SN-02a	BFG Resin Product	3,900,000	14,600,000
	Dicyclopentadiene (DCPD)	3,759,600	14,074,400
	Cyclanilide Product	50,000	100,000
SN-02b	Metolachlor Product	671,807	8,061,687
	Heptane	127,622	1,531,467
SN-02c	Ro-Neet Product	773,250	773,250
	Kerosene	141,660	141,660
SN-03	Propanil Product	2,500,000	30,000,000
	3,4-Dichloroaniline (DCA)	1,780,220	14,592,000
	Propionic Acid	813,187	6,624,000
SN-04a	Diuron Product	400,000	3,484,458
	3,4-dichlorophenyl-isocyanate (DCPI)	330,650	2,810,500
	Solvent Feed	1,250,000	10,621,500
	Dimethylamine	84,000	707,580
SN-04b	MACE CD Recovery Product	72,000	100,000
	Methanol	24,000	40,000

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SN	Product/Raw Material	Production/Operation Rates	
		Maximum Monthly (lb)	Maximum Annual (lb)
SN-05	Aciflourfen Product	743,837	8,926,044
	Aciflourfen Precursor	865,618	10,387,414
	Perchloroethylene	1,035,211	12,422,537
SN-06a	Tris (hydroxymethyl) Aminomethane (TA) Product	270,000	2,737,500
	Formaldehyde Solution	837,000	4,628,864
	Nitromethane	240,300	1,379,700
SN-06b	Ticona Product	12,254	144,300
SN-06c	Cyclanilide Product	135,000	840,000
	Solvent	270,000	2,560,000
SN-06d	2-Amino-1-Butanol (2-AB) Product	109,926	109,926
	Methanol	40,818	40,818
SN-07a	Tris (hydroxymethyl) Aminomethane (TA) Product	270,000	2,737,500
	Intermediate Feed	336,960	3,416,400
	Solvent	45,562	461,953
SN-07b	2-Amino-1-Butanol (2-AB) Product	109,926	109,926
	Methanol	40,818	40,818
SN-08	3,4-Dichloroaniline (DCA) Product	2,200,000	23,214,489
	Ortho-dichlorobenzene (ODBC)	2,530,000	25,519,924
SN-10	3,4-Dichloroaniline (DCA) Product	2,200,000	23,214,489
SN-11	Nitric Acid Storage	1,123,883	11,859,258

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7. Pursuant to §19.705 of Regulation 19 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, the permittee shall maintain monthly records which demonstrate compliance with Specific Condition #6. Records shall be updated by the fifteenth day of the month following the month to which the records pertain. A twelve month rolling total and each individual month's data shall be kept on site, and shall be made available to Department personnel upon request.

Unit 1:

8. Pursuant to §19.705 of Regulation 19 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, the permittee shall not produce products/product intermediates other than BFG Resin, Pentabrom, Metolachlor, or Ro-Neet in Unit 1. The permittee shall re-wash the Cyclanilide product, produced in Unit 5, in Unit 1 and recover the methanol used in Unit 5 in Unit 1, and distill the crude 2-Amino-1-Butanol (2-AB) product produced in Unit 5 in Unit 1.
9. Pursuant to §19.705 of Regulation 19 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, the permittee shall control emissions from Unit 1 with a caustic scrubber (SN-01a) when producing Pentabrom.
10. Pursuant to §19.705 of Regulation 19 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, the scrubbing media used in SN-01a shall be maintained at $\geq 2.0\%$ by weight caustic concentration when producing Pentabrom.
11. Pursuant to §19.705 of Regulation 19 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, the permittee shall test the scrubbing media in SN-01a daily for caustic concentration when producing Pentabrom. The permittee shall maintain records of caustic concentration on site and shall provide these records to Department personnel upon request.
12. Pursuant to §19.705 of Regulation 19 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, the permittee shall control emissions from Unit 1 with a water scrubber (SN-01c) when recovering methanol.
13. Pursuant to §19.705 of Regulation 19 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, the scrubbing media used in SN-01c shall be maintained at $\leq 9.0\%$ by weight methanol concentration when recovering methanol.

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14. Pursuant to §19.705 of Regulation 19 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, the permittee shall test the scrubbing media in SN-01c daily for methanol concentration when recovering methanol. The permittee shall maintain records of methanol concentration on site and shall provide these records to Department personnel upon request.
15. Pursuant to §19.705 of Regulation 19 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, the permittee shall control emissions from Unit 1 with a sulfuric acid scrubber (SN-01d) when distilling the 2-Amino-1-Butanol (2-AB) Product.
16. Pursuant to §19.705 of Regulation 19 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, the scrubbing media used in SN-01d shall be maintained at $\geq 5.0\%$ by weight sulfuric acid concentration when distilling the 2-Amino-1-Butanol (2-AB) Product.
17. Pursuant to §19.705 of Regulation 19 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, the permittee shall test the scrubbing media in SN-01c daily for sulfuric acid concentration when distilling the 2-Amino-1-Butanol (2-AB) Product. The permittee shall maintain records of sulfuric acid concentration on site and shall provide these records to Department personnel upon request.
18. Pursuant to §19.705 of Regulation 19 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, the permittee shall control emissions from Unit 1 with a kerosene scrubber (SN-02a) when producing BFG Resin.
19. Pursuant to §19.705 of Regulation 19 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, the scrubbing media used in SN-02a shall be maintained at $\leq 17.0\%$ by weight Dicyclopentadiene (DCPD) concentration when producing BFG Resin.
20. Pursuant to §19.705 of Regulation 19 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, the permittee shall test the scrubbing media in SN-02a daily for DCPD concentration when producing BFG Resin. The permittee shall maintain records of DCPD concentration on site and shall provide these records to Department personnel upon request.
21. Pursuant to §19.705 of Regulation 19 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, the permittee shall control emissions from Unit 1 with sodium hydroxide scrubbers (SN-01b and SN-02b) when producing Metolachlor.
22. Pursuant to §19.705 of Regulation 19 and A.C.A. §8-4-203 as referenced by §8-4-304

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and §8-4-311, the scrubbing media used in SN-01b and SN-02b shall be maintained at \geq 1.0% by weight sodium hydroxide concentration when producing Metolachlor.

23. Pursuant to §19.705 of Regulation 19 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, the permittee shall test the scrubbing media in SN-01b and SN-02b daily for sodium hydroxide concentration when producing Metolachlor. The permittee shall maintain records of caustic concentration on site and shall provide these records to Department personnel upon request.

Unit 2:

24. Pursuant to §19.705 of Regulation 19 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, the permittee shall only produce Propanil in Unit 2.
25. Pursuant to §19.705 of Regulation 19 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, the permittee shall control emissions from Unit 2 with a water scrubber (SN-03).

Unit 3:

26. Pursuant to §19.705 of Regulation 19 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, the permittee shall only produce Diuron and MACE CS in Unit 3.
27. Pursuant to §19.705 of Regulation 19 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, the permittee shall control emissions from Unit 3 with a propionic acid scrubber (SN-04a) when producing Diuron.
28. Pursuant to §19.705 of Regulation 19 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, the scrubbing media used in SN-04a shall be maintained at \geq 5.0% by weight propionic acid concentration when producing Diuron.
29. Pursuant to §19.705 of Regulation 19 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, the permittee shall test the scrubbing media in SN-04a for propionic acid concentration when producing Diuron prior to each batch. The permittee shall maintain records of propionic acid concentration on site and shall provide these records to Department personnel upon request.
30. Pursuant to §19.705 of Regulation 19 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, the permittee shall control emissions from Unit 3 with a sodium hydroxide and water scrubber (SN-04b) when producing MACE CS.

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31. Pursuant to §19.705 of Regulation 19 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, the scrubbing media used in SN-04b shall be maintained at a pH of ≥ 8.5 when producing MACE CS.
32. Pursuant to §19.705 of Regulation 19 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, the permittee shall test the pH of the scrubbing media in SN-04b daily when producing MACE CS. The permittee shall maintain records of the pH on site and shall provide these records to Department personnel upon request.

Unit 4:

33. Pursuant to §19.705 of Regulation 19 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, the permittee shall produce only Aciflourfen in Unit 4.
34. Pursuant to §19.705 of Regulation 19 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, the permittee shall control emissions from Unit 4 with a caustic scrubber (SN-05) when producing Aciflourfen.
35. Pursuant to §19.705 of Regulation 19 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, the scrubbing media used in SN-05 shall be maintained at $\geq 2.0\%$ by weight caustic concentration when producing Aciflourfen.
36. Pursuant to §19.705 of Regulation 19 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, the permittee shall test the scrubbing media in SN-05 daily for caustic concentration when producing Aciflourfen. The permittee shall maintain records of caustic concentration on site and shall provide these records to Department personnel upon request.
37. Pursuant to §19.705 of Regulation 19 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, the scrubbing media used in SN-05 shall be maintained at $\leq 1,500$ ppm perchloroethylene (PCE) concentration when producing Aciflourfen.
38. Pursuant to §19.705 of Regulation 19 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, the permittee shall test the scrubbing media in SN-05 daily for PCE concentration when producing Aciflourfen. The permittee shall maintain records of PCE concentration on site and shall provide these records to Department personnel upon request.

Unit 5:

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39. Pursuant to §19.705 of Regulation 19 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, the permittee shall not produce products/product intermediates other than Tramethamine, Ticonal, or Cyclanilide, or 2-Amino-1-Butanol in Unit 5.

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40. Pursuant to §19.705 of Regulation 19 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, the permittee shall control emissions from the Unit 5 Condensation Reactor with a sulfuric acid scrubber (SN-06a and SN-06d) when producing Tramethamine and 2-Amino-1-Butanol.
41. Pursuant to §19.705 of Regulation 19 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, the scrubbing media used in SN-06a and SN-06d shall be maintained at $\geq 0.5\%$ by weight sulfuric acid concentration when producing Tramethamine and 2-Amino-1-Butanol.
42. Pursuant to §19.705 of Regulation 19 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, the permittee shall test the scrubbing media in SN-06a and SN-06d daily for sulfuric acid concentration when producing Tramethamine and 2-Amino-1-Butanol. The permittee shall maintain records of sulfuric acid concentration on site and shall provide these records to Department personnel upon request.
43. Pursuant to §19.705 of Regulation 19 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, the permittee shall control emissions from Unit 5 with a DCA lights scrubber (SN-06b) when producing Ticona.
44. Pursuant to §19.705 of Regulation 19 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, the permittee shall control emissions from the Unit 5 Condensation Reactor with a sodium hydroxide scrubber (SN-06c) when producing Cyclanilide.
45. Pursuant to §19.705 of Regulation 19 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, the scrubbing media used in SN-06c shall be maintained at a pH of ≥ 8.5 when producing Cyclanilide.
46. Pursuant to §19.705 of Regulation 19 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, the permittee shall test the scrubbing media in SN-06c daily for pH when producing Cyclanilide. The permittee shall maintain records of pH on site and shall provide these records to Department personnel upon request.
47. Pursuant to §19.705 of Regulation 19 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, the permittee shall control emissions from the Unit 5 Hydrogenation Reactor with a sulfuric acid scrubber (SN-07a and SN-07b) when producing Tramethamine and 2-Amino-1-Butanol.

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48. Pursuant to §19.705 of Regulation 19 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, the scrubbing media used in SN-07a and SN-07b shall be maintained at \geq 0.5% by weight sulfuric acid concentration when producing Tramethamine and 2-Amino-1-Butanol.
49. Pursuant to §19.705 of Regulation 19 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, the permittee shall test the scrubbing media in SN-07a and SN-07b daily for sulfuric acid concentration when producing Tramethamine and 2-Amino-1-Butanol. The permittee shall maintain records of sulfuric acid concentration on site and shall provide these records to Department personnel upon request.
50. Pursuant to §18.1104 of Regulation 18 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, the permittee shall control emissions from the Unit 5 Sodium Methoxide Charge Vessel using a carbon drum to absorb all methanol emission released while filling the vessel. The carbon drum shall be replaced after 65 batches of Cyclanilide have been produced. The permittee shall maintain records of the number of batches of Cyclanilide and the replacement of the carbon drum at the required time.

Unit 6:

51. Pursuant to §19.705 of Regulation 19 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, the permittee shall only produce 3,4-Dichloroaniline (DCA) in Unit 6.
52. Pursuant to §19.705 of Regulation 19 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, the permittee shall control emissions from Unit 6 with a caustic scrubber (SN-08) when producing DCA.
53. Pursuant to §19.705 of Regulation 19 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, the scrubbing media used in SN-08 shall be maintained at \geq 5.0% by weight caustic concentration when producing DCA.
54. Pursuant to §19.705 of Regulation 19 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, the permittee shall test the scrubbing media in SN-08 daily for caustic concentration when producing DCA. The permittee shall maintain records of caustic concentration on site and shall provide these records to Department personnel upon request.
55. Pursuant to §19.705 of Regulation 19 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, the permittee shall control emissions from Unit 6 with a hydrogenation (lights) scrubber (SN-10) when producing DCA.

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56. Pursuant to §19.705 of Regulation 19 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, the permittee shall maintain a lights level of $\geq 45.0\%$ of the total storage volume in Tank T-6207 when producing DCA.
57. Pursuant to §19.705 of Regulation 19 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, the permittee shall record the lights level in Tank T-6207 daily when producing DCA. The permittee shall maintain records of the lights level on site and shall provide these records to Department personnel upon request.
58. Pursuant to §19.705 of Regulation 19 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, the scrubbing media used in SN-11 shall be maintained at $\geq 5.0\%$ by weight caustic concentration when producing DCA.
59. Pursuant to §19.705 of Regulation 19 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, the permittee shall test the scrubbing media in SN-11 daily for caustic concentration when producing DCA. The permittee shall maintain records of caustic concentration on site and shall provide these records to Department personnel upon request.

NSPS Requirements

60. Pursuant to §19.304 of Regulation 19 and 40 CFR 60. 48c(g), the permittee shall maintain monthly records of natural gas usage in SN-21. These records shall be kept on site and shall be made available to Department personnel upon request.
61. Pursuant to §19.304 of Regulation 19 and 40 CFR 60.110b, the permittee shall maintain the following records of the storage vessels listed below for the life of the source:

SN	Tank Number	Description	Regulation	Required Records
38	Tank 2203	Propanil Blend Tank 2	60.116b(b)	Tank Dimensions Tank Capacity
42	Tank 2207	Tenneco Storage	60.116b(b)	Tank Dimensions Tank Capacity
43	Tank 2208	DCPI	60.116b(b)	Tank Dimensions Tank Capacity

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SN	Tank Number	Description	Regulation	Required Records
44	Tank 2209	Isophorone	60.116b(b)	Tank Dimensions Tank Capacity
45	Tank 2210	MIBK/Isophorone	60.116b(b)	Tank Dimensions Tank Capacity
52	Tank 4203	Aciflourfen	60.116b(b)	Tank Dimensions Tank Capacity
54	Tank 4205	Precursor Storage	60.116b(b)	Tank Dimensions Tank Capacity
71	Tank 5202	Formaldehyde Cyclanilide Mother Liquor	112b(b) 116b(b) 116b(c)	Must Maintain Scrubber Tank Dimensions Tank Capacity Liquid Stored Period of Storage Vapor Pressure
60	Tank 5203	Solvent Storage	116b(b) 116b(c)	Tank Dimensions Tank Capacity Liquid Stored Period of Storage Vapor Pressure
72	Tank 5217	Spent Scrubber Liquor	60.116b(b)	Tank Dimensions Tank Capacity
73	Tank 6201	ODCB	60.116b(b)	Tank Dimensions Tank Capacity

62. Pursuant to §19.304 of Regulation 19, 40 CFR 60.480(d)(3), and 40 CFR 60.486(i)(2), the permittee shall maintain records of the DCA process that demonstrates compliance with the exemption listed in 40 CFR 60.480(d)(3). The records shall include an analysis demonstrating the design capacity of the affected unit, a listing of the raw materials and products produced with an analysis demonstrating whether these chemicals are heavy liquids, and an analysis demonstrating that equipment is not in VOC service. These records shall be maintained on site and made available to Department personnel upon request.

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SECTION V: INSIGNIFICANT ACTIVITIES

The following types of activities or emissions are deemed insignificant on the basis of size, emission rate, production rate, or activity in accordance with Group A of the Insignificant Activities list found in Regulation 18 and 19 Appendix A. Insignificant activity emission determinations rely upon the information submitted by the permittee in an application dated May 16, 2001.

There are no specific listings.

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SECTION VI: GENERAL CONDITIONS

1. Any terms or conditions included in this permit which specify and reference Arkansas Pollution Control & Ecology Commission Regulation 18 or the Arkansas Water and Air Pollution Control Act (A.C.A. §8-4-101 *et seq.*) as the sole origin of and authority for the terms or conditions are not required under the Clean Air Act or any of its applicable requirements, and are not federally enforceable under the Clean Air Act. Arkansas Pollution Control & Ecology Commission Regulation 18 was adopted pursuant to the Arkansas Water and Air Pollution Control Act (A.C.A. §8-4-101 *et seq.*). Any terms or conditions included in this permit which specify and reference Arkansas Pollution Control & Ecology Commission Regulation 18 or the Arkansas Water and Air Pollution Control Act (A.C.A. §8-4-101 *et seq.*) as the origin of and authority for the terms or conditions are enforceable under this Arkansas statute.
2. Pursuant to A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311, this permit shall not relieve the owner or operator of the equipment and/or the facility from compliance with all applicable provisions of the Arkansas Water and Air Pollution Control Act and the regulations promulgated thereunder.
3. Pursuant to §19.704 of the Regulations of the Arkansas Plan of Implementation for Air Pollution Control (Regulation 19) and/or A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311, the Department shall be notified in writing within thirty (30) days after construction has commenced, construction is complete, the equipment and/or facility is first placed in operation, and the equipment and/or facility first reaches the target production rate.
4. Pursuant to §19.410(B) of Regulation 19 and/or §18.309(B) of the Arkansas Air Pollution Control Code (Regulation 18) and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311, construction or modification must commence within eighteen (18) months from the date of permit issuance.
5. Pursuant to §19.705 of Regulation 19 and/or §18.1004 of Regulation 18 and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311, records must be kept for five years which will enable the Department to determine compliance with the terms of this permit--such as hours of operation, throughput, upset conditions, and continuous monitoring data. The records may be used, at the discretion of the Department, to determine compliance with the conditions of the permit.

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6. Pursuant to §19.705 of Regulation 19 and/or §18.1004 of Regulation 18 and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311, any reports required by any condition contained in this permit shall be certified by a responsible official and submitted to the Department at the address below.

Arkansas Department of Environmental Quality
Air Division
ATTN: Compliance Inspector Supervisor
Post Office Box 8913
Little Rock, AR 72219

7. Pursuant to §19.702 of Regulation 19 and/or §18.1002 of Regulation 18 and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311, any equipment that is to be tested, unless stated in the Specific Conditions of this permit or by any federally regulated requirements, shall be tested with the following time frames: (1) Equipment to be constructed or modified shall be tested within sixty (60) days of achieving the maximum production rate, but in no event later than 180 days after initial start-up of the permitted source or (2) equipment already operating shall be tested according to the time frames set forth by the Department. The permittee shall notify the Department of the scheduled date of compliance testing at least fifteen (15) days in advance of such test. Compliance test results shall be submitted to the Department within thirty (30) days after the completed testing.
8. Pursuant to §19.702 of Regulation 19 and/or §18.1002 of Regulation 18 and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311, the permittee shall provide:
- a. Sampling ports adequate for applicable test methods
 - b. Safe sampling platforms
 - c. Safe access to sampling platforms
 - d. Utilities for sampling and testing equipment
9. Pursuant to §19.303 of Regulation 19 and/or §18.1104 of Regulation 18 and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311, the equipment, control apparatus and emission monitoring equipment shall be operated within their design limitations and maintained in good condition at all times.

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10. Pursuant to §19.601 of Regulation 19 and/or §18.1101 of Regulation 18 and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311, if the permittee exceeds an emission limit established by this permit, they shall be deemed in violation of said permit and shall be subject to enforcement action. The Department may forego enforcement action for emissions exceeding any limits established by this permit provided the following requirements are met:
 - a. The permittee demonstrates to the satisfaction of the Department that the emissions resulted from an equipment malfunction or upset and are not the result of negligence or improper maintenance, and that all reasonable measures have been taken to immediately minimize or eliminate the excess emissions.
 - b. The permittee reports the occurrence or upset or breakdown of equipment (by telephone, facsimile, or overnight delivery) to the Department by the end of the next business day after the occurrence or the discovery of the occurrence.
 - c. The permittee shall submit to the Department, within five business days after the occurrence or the discovery of the occurrence, a full, written report of such occurrence, including a statement of all known causes and of the scheduling and nature of the actions to be taken to minimize or eliminate future occurrences, including, but not limited to, action to reduce the frequency of occurrence of such conditions, to minimize the amount by which said limits are exceeded, and to reduce the length of time for which said limits are exceeded. If the information is included in the initial report, it need not be submitted again.
11. Pursuant to A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311, the permittee shall allow representatives of the Department upon the presentation of credentials:
 - a. To enter upon the permittee's premises, or other premises under the control of the permittee, where an air pollutant source is located or in which any records are required to be kept under the terms and conditions of this permit
 - b. To have access to and copy any records required to be kept under the terms and conditions of this permit, or the Act
 - c. To inspect any monitoring equipment or monitoring method required in this permit
 - d. To sample any emission of pollutants
 - e. To perform an operation and maintenance inspection of the permitted source

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12. Pursuant to A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311, this permit is issued in reliance upon the statements and presentations made in the permit application. The Department has no responsibility for the adequacy or proper functioning of the equipment or control apparatus.
13. Pursuant to §19.410(A) of Regulation 19 and/or §18.309(A) of Regulation 18 and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311, this permit shall be subject to revocation or modification when, in the judgment of the Department, such revocation or modification shall become necessary to comply with the applicable provisions of the Arkansas Water and Air Pollution Control Act and the regulations promulgated thereunder.
14. Pursuant to §19.407(B) of Regulation 19 and/or §18.307(B) of Regulation 18 and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311, this permit may be transferred. An applicant for a transfer shall submit a written request for transfer of the permit on a form provided by the Department and submit the disclosure statement required by Arkansas Code Annotated §8-1-106 at least thirty (30) days in advance of the proposed transfer date. The permit will be automatically transferred to the new permittee unless the Department denies the request to transfer within thirty (30) days of the receipt of the disclosure statement. A transfer may be denied on the basis of the information revealed in the disclosure statement or other investigation or, if there is deliberate falsification or omission of relevant information.
15. Pursuant to A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311, this permit shall be available for inspection on the premises where the control apparatus is located.
16. Pursuant to A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, this permit authorizes only those pollutant emitting activities addressed herein.
17. Pursuant to Regulation 18 and 19 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, this permit supersedes and voids all previously issued air permits for this facility.

APPENDIX A

Public Notice

Pursuant to A.C.A. §8-4-203, and the regulations promulgated thereunder, the Air Division of the Arkansas Department of Environmental Quality gives the following notice:

Cedar Chemical Corporation (Cedar) operates an organic chemical manufacturing plant in West Helena, Arkansas. Currently, Cedar has six production units. Units 1 and 5 are used for custom products, Unit 3 is used for production of Diuron, Unit 2 is used for production of Propanil, Unit 4 is used for production of Aciflourfen, and Unit 6 is used for production of Dichloroaniline (DCA).

This de minimis change is to allow for installation of a charge vessel between the Sodium Methoxide charge tank and the Unit 5 Coupling Reactor. The vessel is used to more precisely charge the reactor during the Cyclanilide production process. Emissions will vent into the reactor as the reactor is charged. Along with this modification, Cedar is increasing the monthly production limit for the Cyclanilide process. Overall emissions increases are 0.1 pounds per hour of VOC and 0.2 pounds per hour of Methanol.

A second de minimus change is to allow for production of Ro-Neet in Unit 1.

The application has been reviewed by the staff of the Department and has received the Department's tentative approval subject to the terms of this notice.

Citizens wishing to examine the permit application and staff findings and recommendations may do so by contacting Doug Szenher, Public Affairs Supervisor. Citizens desiring technical information concerning the application or permit should contact Michael H. Watt, Engineer. Both Doug Szenher and Michael H. Watt can be reached at the Department's central office, 8001 National Drive, Little Rock, Arkansas 72209, telephone: (501) 682-0744.

The draft permit and permit application are available for copying at the above address. A copy of the draft permit has also been placed at the Helena Public Library, 623 Pecan, Helena, Arkansas 72342. This information may be reviewed during normal business hours.

Interested or affected persons may also submit written comments or request a hearing on the proposal, or the proposed modification, to the Department at the above address - Attention: Doug Szenher. In order to be considered, the comments must be submitted within thirty (30) days of publication of this notice. Although the Department is not proposing to conduct a public hearing, one will be scheduled if significant comments on the permit provisions are received. If a hearing is scheduled, adequate public notice will be given in the newspaper of largest circulation in the county in which the facility in question is, or will be, located.

The Director shall make a final decision to issue or deny this application or to impose special conditions in accordance with Section 2.1 of the Arkansas Pollution Control and Ecology Commission's Administrative Procedures (Regulation #8).

Dated this

Richard A. Weiss

Interim Director

Request for PDS Invoice

Invoice Number

(assigned when invoice is printed)

PDS-

AFIN *

Name

(for confirmation only)

Cedar Chemical Corporation

Invoice Type (pick one) *

Initial

Mod X

Variance

Annual

Renewal

Interim Authority

Permit Number *

878-AR-13

Media Code (A, S, U, W) *

A

Fee Code or Pmt Type Code*

MS

Fee Description

(for confirmation only)

Minor Source

Amount Due *

(whole dollar amount only)

\$400

Printed Comment

(600 characters maximum)

Note: The information below is for use by the requesting division; it will not print on the invoice.

Engineer

Michael H. Watt

Paid? (yes/no)

Check number

Comments

*** Required data**

(See "g:\Misc\PDS_FeeCodes.wpd" for descriptions and discussions of fee codes)

Request submitted by:

Date: